

Figure 1: Protein alignment of Rho small GTPases from *Oryza sativa* cv. Noppon-Brarre (a japonica rice), *Brassica napus* cv. "AC Excel" "Quantum" and "Cresor" (canola), and *Glycine max* cv. Resnick (soybean). Boxes (dotted line) represent the identical amino acid.

BN41992996	(1)	-----MSARFIRGTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VVVNGATVNGLWDTAGQEDYNRIRRL
BN42135991	(1)	-----MSARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
BN42385898	(1)	-----MSARFIRGTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VVVNGATVNGLWDTAGQEDYNRIRRL
BN42519337	(1)	-----MSTARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
BN42557868	(1)	-----MSASVAAASVSTTTAATFIKGVTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VLVDGKTVNGLWDTAGQEDYNRIRRL
BN43381801	(1)	-----MASTASKFIRGTVGCGAVGKTCMLICYTSNKTPTDYIPTVFDNFSA--VVVEGTTVNGLWDTAGQEDYNRIRRL
BN44062474	(1)	-----MASSASKFIRGTVGCGAVGKTCMLICYTSNKTPTDYVPTVFDNFSA--VVVEGTTVNGLWDTAGQEDYNRIRRL
BN44504217	(1)	-----MSARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
BN45412825	(1)	-----MSARFIRGTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VIVDGNITINGLWDTAGQEDYNRIRRL
GM47124407	(1)	-----MSTARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VTVDGNTVNGLWDTAGQEDYNRIRRL
GM47172047	(1)	-----MSTRFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
GM48914268	(1)	-----MSARFIRGTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
GM49741326	(1)	-----MASATARFIRGTVGCGAVGKTCMLICYTSNKTPTDYIPTVFDNFSA--VVVEGTTVNGLWDTAGQEDYNRIRRL
GM50199916	(1)	-----MSARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
GM50693528	(1)	-----MSARFIRGTVGCGAVGKTCCLLSYTSNTPTDYVPTVFDNFSA--VVVNGSIVNGLWDTAGQEDYNRIRRL
GM52260563	(1)	-----MSARFIRGTVGCGAVGKTCMLISYTSNTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
OS30848846	(1)	-----MSGATKFIKGVTVGCGAVGKTCMLICYISNKTPTDYIPTVFDNFSA--VSVDGNIVNGLWDTAGQEDYSRIRRL
OS32558796	(1)	MGCSVVPARSTGGINNISNDNSATDSKDLRAHLLIGSGVGKSCVILRFVRQEDPTSKVTVGASFLSQTIALEDSTIVKEIWDTAGQERYAAIRL
OS33960403	(1)	-----MASSARFIRGTVGCGAVGKTCMLICYTSNKTPTDYVPTVFDNFSA--VVVDGNTVNGLWDTAGQEDYNRIRRL
OS35505384	(1)	-----MGSKPPPPPPQPSVSEHLLVLLIGGRVCKLSLVRYVNDVMSKQEAIVQASVLTAKR-LVVEGVPITLSIWDTAGQEFHAGI
OS37807380	(1)	-----MSSAAAATRFIRGTVGCGAVGKTCMLICYTSNKTPTDYIPTVFDNFSA--VSVDGSVVNGLWDTAGQEDYSRIRRL
YNL090W	(1)	-----MSEKAVRRKIVIIIGGAGGKTSLLYVFTLKGFPQYHPTFENYVTD--CRVDGIKVSITLWDTAGQEEYERIRRF

BN41992996	(74)	SRGADVFLAFSLISKASYENVSXKWIPELTHYAPGVPIVLVGT	DRDD-KQFFVDHFGAVPITTAQGEELMKLIGAPSYIECSSKQENVKV	DA
BN42135991	(74)	SRGADVFLAFSLISKASYENIAKKWIPELTHYAPGVPIVLVGT	DRDD-KQFFIDHFGAVPITTNQGEELKKLIGSPVYIECSSKTOQNVKAV	DA
BN42395898	(74)	SRGADVFLAFSLISKASYENVSXKWIPELTHYAPGVPIVLVGT	DRDD-KQFFVDHFGAVPITTAQGEELMKLIGAPSYIECSSKQENVKV	DA
BN42519337	(74)	SRGADVFLAFSLISKASYENIYKKWLPKTHYAPSIPIVLVGT	DRDD-KQFLKDHFGAASITTAQGEELRKMIGAIKYLECSSKTOQNVKAV	DT
BN42557868	(88)	SRGADVFLAFSLISRPSEFENIAKKWPELTHYAPNVPIVLVGT	DRDD-KKTFPMNYFGACTISTEQCEELRKEIGALAYIECSSKTOQNVKAV	DA
BN43381801	(76)	SRGADVFLSFLSVSRASYENVYKKWIPELQHFAPGVPLVLVGT	DRDD-KHYNKHYLADHPGLSPVTTAQGEELRKLIGATYYIECSSKTOQNVKAV	DS
BN44062474	(76)	SRGADVFLSFLSVSRASYENVFKKWIPELQHFAPGVPLVLVGT	DRDD-KHYNLADHPGLSPVTTAQGEELRKLIGATYYIECSSKTOQNVKAV	DS
BN44504217	(74)	SRGADVFLAFSLISKASYENIAKKWIPELTHYAPGVPIVLVGT	DRDD-KQFFIDHFGAVPITTNQGEELKKLIGSPAYIECSSKTOQNVKAV	DA
BN45412825	(74)	SRGADVFLAFSLSVKASYENVSXKWIPELTHYAPGVPIVLVGT	DRDD-KQFFVEHFGAVPITTAQGEELKKVIGAPAYIECSAKTOQNVKAV	DA
GM47124407	(74)	SRGADVFLCYSLISKASYENISKKWIPELTHYAPNVPIVLVGT	DRDD-KQFLIDHFGSARITTAQGEELKKMIGATYYIECSSKTOQNVKAV	DA
GM47172047	(74)	SRGADVFLAFSLISKASYENISKKWIPELTHYAPTVPIVLVGT	DRDD-KQYLIDHPGTTATATAQGEELKKAIGAAVYIECSSKTOQNVKAV	DA
GM48914268	(74)	SRGADVFLAFSLISKASYENIAKKWIPELTHYAPGVPIVLVGT	DRDD-KQFFMDHFGAVPITTAQGEELRKLIGAPAYIECSSKTOQNVKAV	DA
GM49741326	(77)	SRGADVFLAFSLSVSRASYENVLKKWIPELQHFAPGPIVLVGT	DRDD-KHYNADHPSLVPTTQGEELRKHIGATYYIECSSKTOQNVKAV	DA
GM50199916	(74)	SRGADVFLAFSLISRASASYENVAKKWIPELTHYAPGVPIVLVGT	DRDD-KQFFQDHFGAVPITTAQGEELRKLIGAPYIECSSKTOQNVKAV	DA
GM50693528	(74)	SRGADVFLAFSLISKASYENVSXKWIPELTHYAPGVPIVLVGT	DRDD-KQFCIDHFGAVPITTAQGEELRKLINAPAYIECSSKTOQNVKAV	DA
GM52260563	(74)	SRGADVFLAFSLISRASASYENVAKKWIPELTHYAPGVPIVLVGT	DRDD-KQFFQDHFGAVPITTAQGEELRKLIGAPYIECSSKTOQNVKAV	DA
OS30848846	(75)	SRGADIFVLAFSLISRASASYENVLKKWPELRRFAPNVPIVLVGT	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT
OS32558796	(101)	YRGAAAADVVDITSPESFKAQYWKELQKHGSPDIIMVLVGT	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT
OS33960403	(76)	SRGADVFLAFSLSVSRASYENVMKKWIPELQHYAPGVPIVLVGT	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT
OS35505384	(83)	YRGADAAALLVVDITDNTFLRTVKWKELQKQANKOIMVLAANIS	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT
OS37807380	(78)	SRGADVFLSFLSVSRASYENVQKKWPELRRFAPGVVPLVGT	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT
YNL090W	(75)	YSKADITILIGFAVDNFESLINARTKWADEALRYCPDAPIVLVGT	DRDH-RSYLADHPAASATTAQGEELRKOIGAAVYIECSSKTOQNVKAV	DT

BN41992996 (173) AIRVVLQPPKQKK---KKGKV---QKACSIL-----
BN42135991 (173) AIKVVLPQPKSKK-----KKKN---KNRCVFL-----
BN42385898 (173) AIRVVLQPPKQKK-----KSKA---QKACSIL-----
BN42519337 (173) AIRVALRPPKAKKK---IKPLRTKRSRTCTFF-----
BN42557868 (187) AIKVVLPQPTKIK-----KQRR---FRECHAL-----
BN43381801 (176) AIKEVIKPVVKQKEKTQTKKQKS-NHGCLSNVLCGRIVTRH-----
BN44062474 (175) AIKEVIKPVVKQKGTKKKKQOSNHHGCLSNVLCGRIVTRH-----
BN44504217 (173) AIKVVLPQPKQKK-----KKK---KNGCVFL-----
BN45412825 (173) AIKVVLPQPKNKKR---KKRKS---QKACSIL-----
GM47124407 (173) AIKVALKPPKPKK---PR-----KKRTCTFL-----
GM47172047 (173) AIKVVLPQPKSKK---GK---KNTPCVFL-----
GM48914268 (173) AIKVVLPQPKLKK-----KRKT---QKACSIL-----
GM49741326 (176) AIRMVIKPPKQKQNE---KRKKPR---GCFLNVLCRRNIVRLK---
GM50199916 (173) AIKVVLPQPKQKK---KKRG---QKACSIL-----
GM50693528 (173) AIRVVLQPPKQKK---KKGKA---QKACSIL-----
GM52260563 (173) AIKVVLPQPKQKK---KKRG---QKACSIL-----
OS30848846 (174) AIKVVLPQRRRGETTMARKTTRRSTGCSLKNLMCGSACV-----
OS32558796 (189) IAKRLPRPTAS-----
OS33960403 (175) AIKVVIKPPTKORDR---KKKTTRGCSFFCKGVMRRRLVCFK---
OS35505384 (171) IAKRLLERRKNSS---DGLSLAHPKKGILIVDDEPEKEPPKCCS
OS37807380 (177) AIKVVLPQPR---HKDVTTRKKLQSSSNRPVRYFCGSACFA-----
YNL090W (173) ATRTSLLMKEPG-----ANCCIL-----